



P.B.5818 - Patentlaan 2  
2280 HV Rijswijk (ZH)  
☎ +31 70 340 2040  
TX 31651 epo nl  
FAX +31 70 340 3016

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La Haye  
Division de la  
recherche

Brose, Gerhard  
Alcatel,  
Intellectual Property Department Stuttgart  
70430 Stuttgart  
ALLEMAGNE

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Anmelder/Applicant/Demandeur/Patentinhaber/Propriétaire/Titulaire

ALCATEL

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☐ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☐ abstract

☐ title

☒ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract:

5

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 02 45383 A (ESION NETWORKS INC) 6 June 2002 (2002-06-06) * page 1, line 27 - page 3, line 2 * * page 9, line 2 - line 11; figure 3 * * page 10, line 23 - page 12, line 6 * ----	1-9	H04Q11/04 H04M11/06 H04Q3/58
X	EP 1 176 837 A (NEC CORPORATION) 30 January 2002 (2002-01-30) * paragraph '0039! - paragraph '0066! * ----	1-9	
X	WO 98 58489 A (TELIA AB) 23 December 1998 (1998-12-23) * the whole document * ----	1-9	
A	SCWEBER B: "ANALOG FRONT ENDS BRIDGE THE XDSL-TO-REAL-WORLD CHASM" EDN - ELECTRICAL DESIGN NEWS, vol. 44, no. 7, 1 April 1999 (1999-04-01), page 48,50,52,54,56,58,60,62,64 XP000899059 ISSN: 0012-7515 * figure 1 * -----	1-9	TECHNICAL FIELDS SEARCHED (Int.Cl.7)  H04Q H04M
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>4 February 2003</b>	Examiner <b>Vercauteren, S</b>
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document  T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 36 0226

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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04-02-2003

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## ABSTRACT / ZUSAMMENFASSUNG / ABREGE

02360226.1

The invention relates to Digital Subscriber Line (DSL) infrastructure. More particularly, the present invention relates to a remote Digital Subscriber Line Access Multiplexer (DSLAM) only partially hosted by a central office (CO), split into a central DSL-termination unit (DTU-C) hosted at CO and a remote DSL termination unit (DTU-R), where the DTU-R comprises an analog front end AFE for each DSL line, a multiplexer/de-multiplexer unit DeMux2, and a transmission network interface A4'. The DTU-C comprises correspondingly a transmission network interface, a multiplexer/de-multiplexer unit Mux, a digital back end Dig for each DSL line. The invention is heavily based on digital signal processing techniques.